

10/673860

FILE 'REGISTRY' ENTERED AT 14:43:56 ON 02 DEC 2004  
L1 3 S MKRMKSLAAALTVAGAMLAAAPVATA/SQSP  
L1 ANSWER 1 OF 3 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 432292-29-0 REGISTRY  
CN Protein CspA (cell surface protein A) (Corynebacterium ammoniagenes strain  
ATCC 6872 gene cspA precursor) (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN GenBank BAB62413  
CN GenBank BAB62413 (Translated from: GenBank AB055224)  
CI MAN  
SQL 358

SEQ 1 MKRMKSLAAA LTVAGAMLAA PVATAAEKTP ADIAGDTALS EIQELEVDST  
=====   
51 IEGQKWYQKY ADDERVLKLO ATSPAMDGRK VPLAIIRAQN PDRPTIYLLN  
101 GAGSAEQDTD WLNQSEAVDF YADKDVNVVI PQAGAFSYTT DWNTTPNKSY  
151 LKGPQKWETF LTKELPGPLE ERLQSNNKRA IAGMSMSATS SLLLAQHNQG  
201 FYDAVGSYAG CAGTSTPFY EAMRLTVNRG GGEPEQMWGK MGSRTNRYND  
251 ALLNSDKLRG TALYISSNG LPGETDMPSY YTKQGVDPPT ASVGAATLQI  
301 EGGIIEAGVN HCTHNLEAKL KSONIPAIYN FRDTGTHSWP GWREDLEKSW  
351 PVFEKALF  
HITS AT: 1-25

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

REFERENCE 1: 137:1261

L1 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 332855-96-6 REGISTRY  
CN L-Alanine, L-methionyl-L-lysyl-L-arginyl-L-methionyl-L-lysyl-L-seryl-L-  
leucyl-L-alanyl-L-alanyl-L-alanyl-L-leucyl-L-threonyl-L-valyl-L-  
alanylglycyl-L-alanyl-L-methionyl-L-leucyl-L-alanyl-L-alanyl-L-prolyl-L-  
valyl-L-alanyl-L-threonyl- (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN 3: PN: JP2002291476 SEQID: 3 claimed sequence  
CN 3: PN: WO02081694 SEQID: 3 claimed sequence  
CN 68: PN: WO0123591 SEQID: 2 claimed sequence  
CN Cell surface antigen SlpA (Corynebacterium ammoniagenes signal peptide)  
CN S-layer (surface layer) protein slpA (Corynebacterium ammoniagenes, signal  
peptide)  
SQL 25

SEQ 1 MKRMKSLAAA LTVAGAMLAA PVATA  
=====   
HITS AT: 1-25

REFERENCE 1: 137:305702

REFERENCE 2: 137:274091

REFERENCE 3: 134:291099

L1 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 208292-45-9 REGISTRY  
CN Protein, cell surface-associated (Corynebacterium ammoniagenes strain

10/673860

ATCC6872 precursor) (9CI) (CA INDEX NAME)

CI MAN

SQL 358

SEQ 1 MKRMKSLAAA LTVAGAMLAA PVATAAEKTP ADIAGDTALS EIQELEV DST

=====

51 IEGQKQWYQKY ADDERVLKLQ ATSPAMDGRK VPLAIIRAQN PDRPTIYLLN  
101 GAGSAEQDTD WLNQSEAVDF YADKDVNVVI PQAGAFSYT DWNTTPNKS  
151 LKGPQKWETF LTKELPGPLE ERLQSNNKRA IAGMSMSATS SLLLAQHNQG  
201 FYDAVGSYAG CAGTSTPFY EAMRLTVNRG GGEPEQMWGK MGSRTNRYND  
251 ALLNSDKLRG TALIYSSNG LPGETDMPSY YTKQGVDPPT ASVGAATLQI  
301 EGGIIEAGVN HCTHNLEAKL KSNIPAIYN FRDTGTHSWP GWREDLEKSW  
351 PVFEKALF

HITS AT: 1-25

\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

REFERENCE 1: 129:37228

FILE 'CAPLUS' ENTERED AT 14:45:13 ON 02 DEC 2004

L2 5 S L1

L2 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 18 Oct 2002

ACCESSION NUMBER: 2002:793804 CAPLUS

DOCUMENT NUMBER: 137:305702

TITLE: Protein sequences of signal peptides from  
Corynebacterium membrane proteins and the uses of them  
for secretory expression of proteins

INVENTOR(S): Kikuchi, Yoshimi; Date, Masayo; Umezawa, Yukiko;  
Yokoyama, Keiichi; Heima, Haruo; Matsui, Hiroshi

PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan

SOURCE: PCT Int. Appl., 117 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002081694	A1	20021017	WO 2002-JP2978	20020327
WO 2002081694	C1	20021114		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2442679	AA	20021017	CA 2002-2442679	20020327
EP 1375664	A1	20040102	EP 2002-708684	20020327
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,			

Searcher : Shears 571-272-2528

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IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
BR 2002008136 A 20040302 BR 2002-8136 20020327  
US 2004126847 A1 20040701 US 2003-673860 20030930  
PRIORITY APPLN. INFO.: JP 2001-98808 A 20010330  
WO 2002-JP2978 W 20020327

AB This invention provides a method of produce an industrially useful foreign protein by making a Corynebacterium to efficiently secret and produce the foreign protein. An expression gene construct, which has the gene sequence of a target foreign protein ligated to the downstream of a sequence encoding a signal peptide of membrane protein from Corynebacterium, is transferred into a corynebacterium capable of secreting and producing the foreign protein at least twice as much as in case of wild type Corynebacterium glutamicum ATCC13869 does. Then the thus transformed coryneform bacterium is cultured and the foreign protein released outside is collected.

IT 332855-96-6

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(amino acid sequence of signal peptide; protein sequences of signal peptides from Corynebacterium membrane proteins and uses of them for secretory expression of proteins)

REFERENCE COUNT: 10. THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 08 Oct 2002

ACCESSION NUMBER: 2002:761311 CAPLUS

DOCUMENT NUMBER: 137:274091

TITLE: Use of Corynebacterium cell surface protein signal peptide for human epidermal growth factor expression and protein secretion

INVENTOR(S): Date, Masayo; Kikuchi, Yoshimi; Matsui, Hiroshi

PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002291476	A2	20021008	JP 2001-98802	20010330
PRIORITY APPLN. INFO.:			JP 2001-98802	20010330

AB The use of the Corynebacterium signal peptide for human epidermal growth factor (hEGF) expression and protein secretion in corynebacteria is claimed. The signal peptide of cell surface protein PS1 and PS2, of Corynebacterium glutamicum, and SlpA of Corynebacterium ammoniagenes, are used. Recombinant expression of hEGF as fusion protein with Corynebacterium glutamicum surface-layer protein PS2 N-terminal 44 residue coding and 5' regions, is described. HEGF fusion protein with Corynebacterium ammoniagenes cell surface protein SlpA N-terminal 25 residue coding and 5' regions, is also described.

IT 332855-96-6

RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)

Searcher : Shears 571-272-2528

10/673860

(amino acid sequence; use of Corynebacterium cell surface protein signal peptide for human epidermal growth factor expression and protein secretion)

L2 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 20 Jan 2002

ACCESSION NUMBER: 2002:52119 CAPLUS

DOCUMENT NUMBER: 137:1261

TITLE: Characterization of the cell surface protein gene of Corynebacterium ammoniagenes

AUTHOR(S): Usuda, Yoshihiro; Kawasaki, Hisashi; Utagawa, Takashi

CORPORATE SOURCE: Fermentation and Biotechnology Laboratories, Ajinomoto Co. Inc., Kawasaki, 210-8681, Japan

SOURCE: Biochimica et Biophysica Acta (2001), 1522(2), 138-141

CODEN: BBACAQ; ISSN: 0006-3002

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Three dominant cell surface proteins of Corynebacterium ammoniagenes ATCC 6872 were identified in the cell wall fraction. The cspA gene, which encodes one of the major cell surface proteins, was cloned using the N-terminal amino acid sequence of the protein. Then the cloned chromosomal fragment containing the cspA gene was sequenced and was shown to encode a mature polypeptide of 333 amino acids with a mol. mass of 36,654 Da. The amino acid sequence of the cspA gene showed similarity to the amino acid sequence of C. glutamicum CspA, one of the two major secreted proteins of C. glutamicum, although C. ammoniagenes CspA and C. glutamicum CspA differed in size. Northern blot anal. and primer extension anal. resp. revealed a 1.1 kb transcript and a promoter sequence resembling that of the C. ammoniagenes fatty acid synthase B (fasB) gene.

IT 432292-29-0

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(amino acid sequence; sequence of cell surface protein cspA gene of Corynebacterium ammoniagenes)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE-FORMAT

L2 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 06 Apr 2001

ACCESSION NUMBER: 2001:247521 CAPLUS

DOCUMENT NUMBER: 134:291099

TITLE: Recombinant expression and extracellular secretion of exogenous proteins in coryneform bacteria by protease cleavage of proprotein-signal peptide fusion construct

INVENTOR(S): Kikuchi, Yoshimi; Date, Masayo; Umezawa, Yukiko; Yokoyama, Keiichi; Matsui, Hiroshi

PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan

SOURCE: PCT Int. Appl., 151 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND DATE

APPLICATION NO.

DATE

Searcher : Shears 571-272-2528

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WO 2001023591      A1      20010405      WO 2000-JP6780      20000929
W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
    CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
    HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
    LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
    SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
    YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW:  GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
    DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
    CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2391961      AA      20010405      CA 2000-2391961      20000929
AU 2000074494      A5      20010430      AU 2000-74494      20000929
BR 2000014059      A      20020514      BR 2000-14059      20000929
EP 1219713      A1      20020703      EP 2000-962986      20000929
R:   AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
    IE, SI, LT, LV, FI, RO, MK, CY, AL
RU 2224796      C2      20040227      RU 2002-108118      20000929
US 2003082746      A1      20030501      US 2002-112488      20020401
                                           JP 1999-280098      A 19990930
                                           JP 2000-194043      A 20000628
                                           WO 2000-JP6780      W 20000929
PRIORITY APPLN. INFO.:

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AB A process for the production of a exogenous secretory protein by using a coryneform bacterium is disclosed. The method comprises making a coryneform bacterium to produce an industrially useful exogenous protein (in particular, transglutaminase) and efficiently secreting the product outside the cells (i.e., secretion). A target exogenous protein is produced by using an expression construct wherein the target exogenous protein gene sequence containing the pro-structure part is ligated to the downstream of a sequence encoding the signal peptide originating in a coryneform bacterium, transferring this expression type gene construct into the coryneform bacterium, culturing the thus transformed coryneform bacterium, and treating the extracellularly released protein with a protease, etc. to cleave and eliminate the pro-part. Use of the signal peptide of S-layer protein (S-protein) such as Corynebacterium ammoniagenes slpA or Corynebacterium glutamicum PS1 and PS2, with a Streptomyces albogriseolus serine protease SAM-P45 and Streptomyces mobaraense proline-specific peptidase svPEP, for the production of Streptoverticillium mobaraense or Streptoverticillium cinnamoneum pro-transglutaminase, is described. Streptomyces mobaraense proline-specific peptidase svPEP, active toward Ala-Ala-Pro-pNA, Ala-Phe-Pro-pNA, and Phe-Arg-Ala-Pro-pNA, and inhibited by phenylmethyl sulfonyl fluoride (PMSF) or aminoethyl benzene sulfonyl fluoride hydrochloride, is specifically used.

IT 332855-96-6

RL: BPR (Biological process); BSU (Biological study, unclassified); BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process); USES (Uses)

(amino acid sequence; recombinant expression and extracellular secretion of exogenous proteins in coryneform bacteria by protease cleavage of pro-protein-signal peptide fusion construct)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN  
ED Entered STN: 06 May 1998

10/673860

ACCESSION NUMBER: 1998:256030 CAPLUS  
DOCUMENT NUMBER: 129:37228  
TITLE: Cloning of gene for novel cell surface protein from  
Corynebacterium ammoniagenes and use of its signal  
sequence for protein secretion  
INVENTOR(S): Usuda, Yoshihiro; Kawasaki, Hisashi; Utagawa, Takashi  
PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 10108675	A2	19980428	JP 1996-265661	19961007
PRIORITY APPLN. INFO.:			JP 1996-265661	19961007
AB	The gene encoding a novel cell surface protein is isolated from Corynebacterium ammoniagenes strain ATCC6872. The signal sequence of the gene can be used for the preparation of transgenic microorganisms capable of secreting heterologous proteins.			
IT	208292-45-9 RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses) (amino acid sequence; cloning of gene for novel cell surface protein from Corynebacterium ammoniagenes and use of signal sequence for protein secretion)			
L3	(FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 14:45:32 ON 02 DEC 2004) 0 S L1			
FILE 'HOME' ENTERED AT 14:45:40 ON 02 DEC 2004				